afa utilize at coinduction a different view, a finite plural view, a nonfinite plural view, just n set elements of viewing heads,

making microparticles, and nanoparticles, is there such a thing as a picoparticle?

Genetic algoithms used to grind finer particles:

https:// www.sciencedirect.com/ science/article/abs/pii/ S0032591006005250

a .5nm - quantum dot is published, so they could make picoparticles.

so milling powders, solvent; from zero to 21 waters of hydration; GA

Deuterium, is gooey

water; and can be reuesed is 68c/gm online; does it grind powders differently?

if powders are ground with ice crystals, do the come out smaller; microcomminutors,

grinding powdres n liquid metal; reuse eutectic, gallium,

grinding powders in

hydrocarbons like gasoline compared with oil, e-thixotropic could make oil variable viscosity/ 10W 40, genetic algorithm finds temperature optima for sequential microfine to microfiner particles at grinding oil, honing an edge on oilstone suggests smaller particle scrape size for oil milling of things like battery ingredients, other

## nanoproducts

if a solvent is 20% microparticles can you use, at some fancy application, flow cytometry to get down to smallest flow cytometry feature particle size where microfluidics then sorts things to microfinest, microfiner, and others, which delivers microfiner to grinding apparatus

plasma deposition on oil surface like conductive PEDOT 60% oil, that is stirred makes super eentsy nanoparticles;

rinsable zeolite; stir
microapeture forms that
are cheap to make like
zeolites, or "hard
zeolites" with ground up
powder; the zeolite pores
fill with the finest of
microfines

(nanopowders) the dissolve zeolite to get powder or acoutically wiggle zeolite to get powdre and reutilize the zeolite.

the internet syas, "The process conditions were milling speed, milling time, and ball to powder weight ratio." milling speed; relative to neighbors, entrained groups of particles

compared with maximum degrees of dperical coordinate motion "milling speed" sort of like pressing the shockpulse button on a blender, is highest disorder millinging, compared with a milling that has more linearity faster way to grind particles, use a genetic algorithm to make the optimal thing, at the preferred particle size

and what its made out of of. That stirred stuff in a blender looks linear; fluidized bed is perhpas non grinding but highest stochasiticity; fluidized bed next to milling balls could make eentsier particles faster. ThZ fluidized bed, comparing linear swirl in a blender to pulse stachaticisms, at ball milling, could stachasticizing the balls

more make for finer powders faster; if ic could then the middle of each ball at at ball mill could have a magnet in it, and an EMP field could thump the balls at the ball milling process at any frequency that optimized ball milling stochasticism. The ball mill balls could, rather than have actual magnets in them, have electric path windings (coils) in them that could

be induced by an EM field to be magnets that then interact with another pulsed EM power field (maybe), via hysteresis and ferrite bead cores.

also grinding things like battery chemicals one way of grinding might make little spheroids, but another way of grinding might make plates, sort of rice krispie lookinng micro-shingles;

magnetic moduclation might caue it to be possible to bear down on a thing being milled, causing more of the squished looking microshingles. it might be art: physics simulator deoes prince ruperts beads, genetc algothms traverse a variety of form of PRB, including ones where the tail is tucked back into either the still molten

main "blobhead", or something like a PRB that is a dounut or cylinder bead, and the tail tucks back into the hollow od the dount or tail

elevating a GA with stochastics like adding snow to a picture breagings out the features; there's a GA, and you add feature brinking out snow to it at three areas i've heard of,

beginning, local minima, local maxima, to see if it either does a better job jostles of "localnes" or even at a maxima, makes the the you are maximizing more maximal, that is more of what you want tis present; this could be translated into math and computer programs

zeolite grab, causes diminisment to omit

occuring from happening; ball mill powder sequesterment and subsequent result of particle size; or you could just rinse it out;

Islands of sand, and the islands respond to ultrasound with jumping around to make maximum disorder;

is acoustically enhanced milling, if it makes sense, enhanced by using a monoatomic gas of of a particular pressure to most effectively transmit wiggleness to micro/nana/picopowders;

Is milling in liquid hydrogen a smallest picoparticle maker; as previously described likid Kr or Ar is much cheaper, easier, but what about

the even cheaper milling with ch4, LNG, as a lubricant? The peltier effect gets to -70, and ethane liquifies at -88, so a slight betterment or cascade of peltier effect could make liquid ethane, as could of course a gascycle refrigeration device:

.5b Thinking of a blender with powder in it, then thinking of a

blender with balls in is to crush things more effectively:

The blender stirs and it looks like kind of orderly from the top, "perhaps", you think, "There is a way to send a sudden reversing shock into the blender-stuff to crush it finer, crush more of it, and even crush it with greater efficiency"

Then you notice the blender has a "Pulse" button, when you press it the blades reverse causing a moment of reversal and posssibly stochasticism in what looks like regularly swirled ice cream in the blender. It works pretty well too.

Now, applying the pulse button to indudustrial milling, rock grinding,

and making hyperfine nanopapowders (or even picopowders) for bettter battery ingredients.)

At the mill or blender that is a stirred, tubled, or press-rollerered way of making powders or microchunks have beads or balls in the mixture.

Each ball of bead has a little loop of wire and a magnetic (ferrite) core it

it; the inductor is connected to another loop of wire (and likely ferrite core). If you put the bead in an alternating magnetic field it will make a new very powerful field right next to it.

Mix the beads with what you want to grind, then, at whatever frequency of making the beads Pull together, push apart, or

hop away from the machine sides (magnetic sided machine and option) causes the mathematically modelled finest materials, or fasted generated materials.

So, this is a way to install the "pulse" button on a variety of industrial mills (rock crushers to battery chemical makers)

what if the peanuts in flat

peanut brittle started jumping around? at a roller mill —-8== the flat stuff getting ground could have reusable jump around beads in it.

20-40% more efficient than a rock tumbler \*ball mill\*

laser refresh grinding surface \/; thz interferometry reads

crushed rock, flexifies the plaes of the v to toptimize forces for milling materials; a little convex or concave heere or there ups efficiency slightly; em windings, acoustic transducers, mixing of pusling of between \./ crusher plates is also possible.

99% electric motor suggests 99% linear actuator suggests 99%

acoustic energy efficiency if run at various higher Hz; attach to crusher plate \./ for optimal crusher plate shape;

henetic algorith all shapes between —— 8=== rollet mill and \./ crusher plate to find most efficient; at some materials is it nested )) vibrating funhouse mirrors; genetic algorith

makes library of top 100,000 inustiral substances, including battery materials (2020: nanoparticle picoparticle lithium molecules)

3D printed linear actuator overlay for exterior sied of (.( or \./ reminds me of printing motors menioned on .5b

you could increase efficiency of a ).) or (.

( crusher that has linear actuator sound raster scanning it to optimize crusher plate flex by putting the entire thing in a tank of water, or pressurizing the room it is in to multiple atmospheres of pressure for better sound transmission.

foam, compare with bendy lace polymer atom-to-atom linked

doilies, acoustic flexion (holes all over the graphene. boron polymer, si polymer, zeolite tennis net), or other kind of (n)Hz frequency response material; among other uses this dry powder could be placed in squishy foam earplugs to filter out any frequencies squishy foam earplugs are less good at; cheap car mufflers (zeolites),

"quiet" graphene additive to oils dampens vibrations which might cause surface-surface contact and wear, making the oil cause machines to last longer;

Could a noise dampening oil additive actually work? Could it reduce nonfan vacuum cleaner screech?

doily graphene oil doliy garphene polumer, doily anechoic mattress wiggle stuff polymer, cushiony seats at cars and motorbikes,

genetic algorith could develop a better car muffler; psychology of lest preferred vehicle noises from traffic, and mufflers that minimize those (accelleration noises) Putting an ICE in

a polymer dewar sack, like literally, a coulple big mylar bags with either (very fewest that will do the job) little nubs molded into the mylar or hollow core bead spacers and vacuum between them; applications at road trcuk engines to make them quieter. duomylar vacuum dewar around vacuum cleaner motors, boat engines (quieter pleasure boats)

HVAC motor mylar bags, dwelling refrigerator motors, genetic algorithm finds nub spacing and patterns at fun software that makes a custom bag geometry for anything you want to put in the dewar bag.

The delux version the mylar bag is made of a moise reduction doily polymer, or a still supports a vacuum,

mylar foam film; stuff a noise reduction mylar bag around the interior workings of power tools like electric drills, circular saw motors,

genetic algorith quietness producing acoustic ceiling tiles, floor tiles from a math space of 10 dewar bead polymer materials,

various heights, different frequencies, different apeture patterns, say 10 inds of sounds sources (classrooms, offices, factories, restaurants, retail, concert halls, public transit (I've never seen acoustic tile on a Light rail train or city bus, but you can hear people and vehicle during the 20th century), possibly something like acoustic tiles are placed in driving

vehicle panels, an acoustic tile sticker could be placed next to a PC fan, although that seems kind of 20th century, the backs of frisges is a novel new application of acoustic noise reduction dewar paint or genetic algoithm optimized acoustic tile. The radiator seems to hum a little, but I could be imagining it, and right next to the motor would

## make fridges quieter.

A person with even the slightest sense of the future could see replacing all the metal ductwork in an internal combustion vehicle with dewar peanut brittle sound absorbing polymer ductwork; whether that is the exhaust system, saving weight, increasing mileage.

genetic algorithm of vehicle tire construction finds optimal performance with new materials; Dewar microbeads could make tires quieter, or maye just mildly better as perhaps tire noise is really 50% of the noise coming from the road meeting the tire, not the tire.

Previously described doily graphene or other

### polymer oil

as a new and extreme material, a dewar microbead could be made of something wettable with steel, like ceramic, so make a new "peanut brittle" steel that is less thermally conductive, with different coefficients of thermal expansion, and

Also, I keep mentioning dewar beads, what of other MEMs shapes? At steel or otherwise, MEMs guitar boxes, MEMs octopus/dendrite multiarm big center bubble jacks (big bubble reduces weights, octopus arms might actually traverse distance beentween grain @grainsize in steel, causing the thing to be strnth-neutral to strength

increasing. MEMs jacks that are so small they have their octopus/dendrite arms between, perhaps 2-3 shells of metal grain distance; this strengthens the steel, changes its flexibility; (kind of reminds me of central neurons and axons and dendrites); at the 1000 most used steel alloys, do genetic algorithms on the MEMs

dendrites and octopuses that are easiest to make, to find the cheapest new extended capabilities of steel, like Octopus 10,000 at grainfrom steel 555-A is, according to the model, then the actual manufactured test material, 100% more rigid, 3% less likely to rust, and melts 500 degrees higher.

MEMs dendrites could of

course also be used on high performance alloys like airplane part engine metals. Economics May be highly favorable as dingle crystal tungsten metal blades have been seriously considered at these applications so making MEMs intergrain octopuses and dendrites looks alot cheaper than that.

Actually genetic

algothms to see if MEMs dendrites and octopuses can reduce rust and corrosion at any metal is beneficial. Something cheaper than stainless is great. One possibility is that MEMs octopuses are charge-doped, so then tend to be plussy or minussy next to grains far along the arms, "ampihilic", "zwitterionic", "highly polar", "nonpolar"

analogous MEMs octoupuses could be made and tested, with of course some modelling and computr simulation, for corrosion reistance chnages. One kind of exciting possibility is that metal with self limting corrosion like aluminum forming an aluminum oxide (sapphire) film on it, is that outside or at another application the MEMs octopus containing

alloy would oxidize/corrode/react down to the geometry area the MEMs was directing, where things like "highly nonpolar" or "like the eentsy metal conductive traces on the surface of a photocoltaic that carry caurrrent away"-> e- charge distributing across multiple grains simultaneously, Or whatever happens when

a MEMs electret meets a charged surface.

Making MEMs octopuses and dendrites as cheaply as possible; just grow them, dendridritic polymers are widely studied already; 2) using a diffraction grating, send lasers into condensing ceramic fog; at 3D, quadrillions, petillions, zeptillions, of litlle laser condensation shapes

canbe made; or, rather, perhaps their negatives made; if I make a laser thing that looks like a grid, and I wiggle the temperature and prssure to cause condensatin, perhaps there's an absence of any condensation where thelaser is, and nine little squares [] condenseout of the 3D mist.

So tomake a dendrite,

the light shape is just a plate with a hole in it, everything outside the hole stays uncondensed, and the atoms condensing are cool and agglmerating (building upfrom fog) in the hole in the plate. diffraction grating laser light spaces canbe 3D so you can make a dendritic jack as well as anoctopus.

## Depending on the condensation

at a tangentially related technology .1/10 1nm (100 picometer) vertical coating are constructed with publised IC technology, so regular and eentsy items forming with extreme regularity from condensation is published, ljust don't know about at 3D volumes, kilogram

quantities, from the cheapest molecule or metal vapor that can be produced

If the dendritic cotpus is made of metal-wetting cermaic a Cr alloy is supported by high Cr having much better glass-metal bonds; Notably an alloy that is 1%Ni or 1%Cr or 1% W or 1% V or much more than 1% on any of these is

well known at the steel industry, so a dendritic octoupus made out of Cr,W, etc. if chep enough to make at 3D volume laser diffraction grating machine, and just 1% of compares very favorably to a 55% Ni or Cr stainless steel and is much much more affordable, approaching 50 times more affordable. One idea is that dendritic octopuses that span

grain boundries are so good at making characteristics better. they replace the highexpense metals at steel alloys. Graphically, if you had nuggety eggs of Fe Fe/alloy in partial, occasional egg cartons (or those wavy dip u~u~u~u produce mats, and you think of the produce mats as being dendritic octopi, then the New steel is better.

What's the cheapest way to make dendritic octopuses and ~~~ wavy egg carton/produce mats for alloy grains?

Cheapness goes with size; for some sizes of MEMs making a MEMS that holds 10-1000 Fe alloy grains is smaller than an "inclusion" but could be beneficial. A produce mat that has a

little dip for each Fe Grain likely has great proerties, and a makes rooty tough-clumps (just like root clumps) dendritic octopus could span anything from 4 grains to, at a kind of wet felting, or load the flask with 1% cotton candy (ultra long dendrite felt) manufacture, dendrites and jacks that are hundreds or thousands of metal grains long.

Finding optimal characteristics goes well with software simulation, that is supported by figuring out the very cheapest dendritic octopuses

The Octopus dendrite
MEMs could be not only
ceramics (metal wettabel
seramics)like where-the
glass of a lightbulb seal
meets the metal of a

conductor to attach well enough to stay together. Or at metal wettable polymers, silicone bonded to metal is already published https://www.sciencedirect .com/science/article/pii/S 0300944015001010, PEEK Polyether ether ketone (PEEK) is a 482 (melts 649.4) F plastic, deuterate it, aluminum 865 33% more than peek

### Try deuterated PEEK,

I can find, and deuterated silicone,

where the doily graphene replaces the carbon at a steel, and the wad of graphite wool (octopus looks like crochet blob of graphene with arms)

hole the laser shape is an asterisk, the arms consendense between the radiating lines of the asterisk, and at the core of the laser diffracted light form is a perforation or scoring mark - - - - , angle brackets | and "square and MEMS rain"

or Sort of like

Thread is a clue; socks at alibaba at 3 cents a pair, so synthetic fibers can pass through a nozzle cheap enough to make "socks" volume for say 1/3 cent (1/3 plastic, 1/3 making a thread 1/3 knitting a sock, 20% markup), the thinnest thread produced online is

broadcast a wire coil in 3D space with light and have it condense into

#### existence;

levitate a bead with a tail

if double and fold makes optically transparent gold, you can just millifiore the nanowire dendritic octopus could be made from

peltier @ 1 trillion nanometers long and however wide you want at a CVD cahmber builds height and girth fast but nothing atick to sides;

pancake maker: lasers illuminate peltier sheet in CVD environment; space betweenlasers condenses into wires, shapesm and (\*) (puck with a mold form cut out of it for

1/2 3D

300 mm wafer or much

bigger peltier element
has layers of undulating
hills [~~]
photolithographed to
make half a mold onto it.
Lasers slice away
anything except
preferred bottom of mold
shapes.

Raving Looney party members wouldsay that based on 1/10nm AFM positioning stages make it possible to take two

wafers, put a trillion little octopi and dendritic jacks, and high wall TV dinner tray molds CDV a metal into them, combine mold halves; fuse the molds: disslove the back of the molds; and have trillions of forms. It is possible it could work, but keeping things hypercheap

The internet says there are 40 nmmolds, so

going with the idea that you can make dendritic ocotpuses and 1/2 jackdendrites, and undulating produce aisle polygon shapes of 40 nm diameter how much do you get, and how fast can you make them? 1-10 minutes to grow Sloppy growth 10x faster very sloppy growth 100x faster (cooled (peltier or just set it on a compresion fridge) mold

base, superheated CVD Array of 10 wafers at a grid of manufacturing stations

2 grams of molded materail per wafer 200g-2 Kg per 1 -110 seconds.

But, transit time and demolding could take a full minute, so that's actually

continuous nanbatch

circular molding CVD >demold ->loop back to
CVD; 1 minute; 400
trays(like a wafer each)
on the circle-line, 2.5
grams per tray,
1kg/minute

10 lines, 10Kg/minute

Cost comparison: DRy ice 50 cents a pound, that covers the Gamut of refrigerating the molding process to using

# electricity to do the CVD Reagents

Is an electroplating of 40nm molds possible? If it is then the cost of the metal chloride for electrodeposition is near this. if not then CVD

Better would be to

That's only

a single layer of mold hollows, CVD or even rinsable chemical on peltier mold landscape,

Mass: Ok, so you dip a 300 mm wafer in gallium, you scrape it off,

soak tube in TRinucleic acids, and

# possibly some proteins I do not know about

less vibration conductive,

Just a thing: doily graphene as the carbon in steel, what does it do compared with other grainsizes?

How puffy can a latex paint be, and still be acceptable for home and

builsing use? Dewar microbeads at 1-80% (with peanuts smaller than the eye can see peanut brittle paint) in latex paint could make rooms, schools, factories quieter.

If it is cheap enough, you could dewar paint/quiet dewar polymer film coat HVAC metal ducts to see if they actually become quieter; same energy

efficiency from absence of baffles.

antithrum, macroscopic inkjet printed dewwar paints could make like a big millimeter element ((O)) fresnel lens from absorptionality stuff, and the effect could be to absorb sounds at lower frequencies; better might just be casting a tile, or embossing a overheadtransparency sheet or sticker of flat dewar polymer peanut brittle/rice krispie treat polymer with the ((O)) acoustic decresing fresnel lens

genetic algorithm
intra HVAC ductwork ]
[ connector or 1 cm
bridgepiece with
accordion polds or dewar
polymer, or silicone
(durable) earplug foam,

or high temperature dewar beads as peanut brittle contained in low melting metal bracket/connector; example: some metals melt at 400; silicone polymer can handle 2000; dewar silicone beads as rice krispie treat/peanut brittle fill at 1-90% of the mas of metal at a duct bracket make a use-like regular duct bracket during

installation that is also a vibrationblucking "thrum" reducing acoustic isolator;

dewar carpet keeps
things quiet. Quallofill,
but with IR reflective
mirroization (mylar chip
bag, tin oxide, deluxe
version is layers of
polymer for optical

mirror), and not just quallofill, ==]==]==][88][88][88]; laser/ultrasonics at production welds plenum walls shut; fabric is made in a room that is at a vacuum; result is 1/10-1/100 of a mm string of microdewar capsules; This material is likely to be particularly warm and insulative (coats and sleeping bags and carpet fibers), and particularly

quietness producing as acoustic insulation, a fluffy blob of it could be stufff

the glass version of dewar quallofill could have a much higher R value than pink fiberglass insulation

milliofiore construction of IR reflective layer of glass could make a big stack of refractives to make cheaper better easier IR mirror than metal or other chemical IR reflective vapor deposition way of doing it.

Some google scholar things mention using mutil

of

laser chin whisker on boats cleans hulls. I can imagine this as a rental, or just like a pull = in carshwash a pull in boat \*hull)wash)

COmmercial applications to improve mileage are obvious;

a flying drone that lasers crud (rain crust, bird poop) off wind turbine

blades might make sense.

making cement is 3% of globabl energy use.

The beads can all be

time and machines to make nanopowder from micropowder may matter more than energy to

## make

Icelandic nanogrinding of micro and nanopowders with some of the worlds cheapest electricity; anywhere they mine bitcoin they could make a nanopowder factory. It might be 2-4 times cheaper.

CPP to cornea and eye muscles, a pill that reaches these and

relaxes or tightens them to adjust vision to 10/10 or 20/15 like photorefractive keratotomy can.

contact lens as drug delivery factor align dots, different side drufs on different sides of eye (10 and 2 to cure a particular astigmatism; look in the opticians machine to find out if you are fully normal vision or at preferred

20/10 or 20/15 lens reshaping botox, antibotox, screen a library; two stage; the 10-20 minutes to look at the optician's machine to get the test it temp contacts; then the actual

12.99 alibaba pc projector could be medical optical diagnostic; \$9-54 inkjet printer makes contacts; then print permanent

change contacts and wear them for 5-10 minutes (botox soak in)

alternate version; cheaper: put in drug contacts with three frequency responsive drugs; laserpointer plays over contact realeasing just the right amount of drug at the right spot for permanent vision correction;

reversible; either inentional relaxation/muscle building steroids or

conatacless, put in an eydrop of the three frequency drug cocktail; laser zaps just perimeter of eye far from pupil; relaxation or tighteneing result; eye drops every day for a week is one option

or, look in the box, get the geometry based prediction, instill the eyedrops (or CPP nasal spray or pill) and modify the eye muscles.

inkjet print the pattern of drug on the contacts (10/2) etc

inkjet mucous strong



screen a library, flow cytometry of yeast

size, and longevity

duckweed, size, longevity, fecundity (generation time), nutritional quality

But why these organisms, why seek to amp up something you've heard of when

you can screen a library of a million things, find the ones that amp up, then modify and breed them to do something useful under electromagnetic control, making electromagnetic control of living organisms a real useful, engineered thing.

## fungi at rainforest soil samples from 11 locations around earth

Daring to make a custom RFID repeater tag/chip. broadcast known to be harmless power frequency, then have RFID tag/inductor/or better translate it to a new RF frequency and waveform, put a camera chip and IoT

on the tag, see if it grows different. scatter a million of them or more throughout the world. Make them biodegradeable. (perhaps their reporting connection is elon musk's global wifi) screen

crowdsourcing ideas on this would be

great. Instead of one person thinking of a class or category and then saying screen a library to find possible EM epigenetics, a screenable library of completely ne ideas can be generated with crowsdourcing. Here at the ghalfbakery of course, someone might suggest parasites, viruses, and bacteria that

preferentially colonize the electric organs of electric eels. There is something they like about electricity. **ANother person might** say, get bacterial cultures from the surfaces of EM rich humming powerstations in rainforest countries. They might be covered with bacteria that make some

preexisting, or newly developed use for em.

Others would say, why not just make it: link an EM sensing peptide or protein to a rigged ribosome, such that the rigged ribosome makes a particular loop, not terminating linearity of mRNA, whenever EM triggers the EM respponsive protein now attached

to that ribosome. Crude, but you could get a yeast to make something on purpose, anytime it was near a certain kind of EM. I have not heard of an upper bound to copy n paste genetic engineering. Has anyone yet tried simply putting 100,1000,10,000,100, 000 duplicate statements into a

genome, and finding out how it is possible to do that with and have the thing still run?

Like with automation and microfluidics, 100-1 million DNA code variants on a protein, like a fluorescent protein, a light emitting protein, a fluorophore, and a light absorbing

protein (rhosopsin); If you've already verified 1 million copy n paste functions can be made in yeast, and all will still execute (run, make protein) then you can microfluidically make a library in a single yeast, grow a bunch of it, stimulate it, and screen the library for something that benefits people.

So, 1 million copy n paste variants on the first EM responsive protein they can find or make; make a yeast flask culture out of it and do microfluidics, bradcast EM of different waveforms and frequencies at part of the microfluidic path, not change with flow

cytometry to GFP output, organisms size, budding, longevity; Then you have a successful, we made 10-1 million different frequencies able to address a yeast. Then with 10-1 million parallel EM frequencies to talk to the yeast

you make a yeast artificial chromosome,

so a little stretch of a normal yeast DNA is under direction of 1 of the million parallel frequencies. You verify itworks by broadcasting EM, and then measuring the mRNA and protein product atthe yeast.

Then you use the EM epigenetic technology you just created at other organisms.

g coupled proteireceptor with rhodopsin attached to its tail where the rhodopsin has the virus gene tha makes little silver crystals. all together that makes a receptor that makes little silver crystals, the idea then is if you mutate and winnow a liter of organisms with that

GCPR, (EM at One side of flash) ad they do something new, like head toward the EM emitter (the GCPR could be linked to omething that says "swim more" (amoebas, proteus, daphnia, sperm,) and there is an area near the top and to the side that ordinarily only 1 out of 1000 orgabisms would usually

stochastically reach, and you GFP the silver crystal organisms, then at that usually empty space, a preponderance of GFP organisms there suggests, it worked! The EM is driving the organisms function. Thencpy n paste 1000-1 million identicals, excpet for one amino acid different, or maybe one codon

differnt, at each unitary organism genome, then play across/screen a million EM frequencies and waveforms to see if you can get any other frequencies that cause swimming up tothe blank area near the (or perhaps if the EM causes more swimming) farthest from the radio source.

also: when EM, make **GFP (1 minute of EM** yeast or organism paused in channel) makes a certain amount, preferably detectable, of GFP, or spectroscopic deuterated something; a million fluidic channel frequency response tester can process a million organisms a minute, so you

process a billion organisms if you have 10 machines working 100 minutes, or if you think of that as an hour, 1000 hours to process a trillion organisms, 1/8 of a year, or less than 2 months.

.5B I think a lot of people have thought about this, but I don't know if they bothered

mentioning how to make a million frequency channel organism:

Then every organisms responsive to EM can be adjusted at a distance, or from space. For example if you have an EM responsive million frequency tree you

could tell it to grow.

yeast artificial chromosomes, they have.

microfuidic copy n paste a million protein variant makers into yeast; combinations; winnowing; utility

If EM, then go to licken on a rock mode huns etertain

what do mammal hibernation chemicals do to plants? what do opiod peptides do to plants?

Not to be too graphic, but:

You have a mouthful of saliva and various gentle and harmlesss blobs of phlegm in

your mouth. If you are like me, you can push (stream) it through your teeth (like a nozzle). The phlegm blobs deform and pass deftly through the gap between your teeth and there is an untorn phlem blob on the other side of your mouth. The wet stringy stuff made it through intact.

Now lets say you are pushing injection molding plastic through a nozzle to make something cheap and disposable. For some slipperiness (viscosity) of polymer, some diameter of stringiness, and some outrageous cheapness of stringy polymer you can make injection molded things, with

only slight modifications and improvements to existing technology that has ...Support Fibers (string goop) all throughout it.

Let's say it works. The injection molded object, often a disposable object, is 5-10% structurally stronger because the slight stringiness

made it through the nozzle. The great thing is, the ecology message got to you, so instead of making a pizza table 10% stronger, you decide to make it the same strength with 10% less material. You are reducing the amount of disposable plastic in the environment, and materials costs simultaneously.

How does the stringiness occur in the first place? injection molded plastic, and other methods of plastics manufacture, starts out as pellets. These pellets could be made with stringiness part of their nature. The cheapest way is to dip/roll coat them in stripes of the same

polymer, but a longer more-mer longer higher AMU version (stringiness), or perhaps powder compress them from layers, with some of the layers being higher AMU versions of the injection molding polymer.

Another way to do it, which I really like, but it might not work, is

laser polymer surgery en masse at already produced pellets traversing a pathway or hopper during their manufacture. I'm not really sure, but if you put a little warm laser line on a piece of plastic, it might kind of congeal and retain some limited memory of the hot 3D spaghetti path you make in it with IR light

## (diffraction grating/hologram).

Zero additives involved. I just have this perception that if vou melt, and casually, without extra equipment, let cool, plastic it retains some shape information. So, you make beautiful 3D shapes of IR laser light that look like referee stripes, or

whatever the genetic algorithm likes best to turn into optimized strings, and project them into industrial standard, unmodifed plastic pellets of unusually standard and otherwise unmodified variety (cheap). This could be done at the pellet factory. Some people might even want to laser up their pellets

at the melt/injection machine at the plastic object factory.

You injection mold the plastic. Its got stringiness, however much you like. The genetic algorithm models suggest different amounts of stringiness for different but very high volume, globally similar applications of

pellet plastic. Wire insulation. (there's a lot of that), flimsy food bags and frozen pizza membrane wrappers, and grocery store bags and car vehicle interiors, and, a big one, geotextiles, like the cover-allground plastic (visqueen) they use to grow strawberries and other agricultural crops.

They could just purposefully do a genetic algorithm optimization of string length, how many strings, string form (form: because, remembering mucous through your teeth, you can pass a Y shape, or a loose mesh #, or an octopus through a nozzle) at say the 300 most

frequent uses of pellet plastic on earth to see if they can go beyond my 10% less plastic estimate to use 14% less plastic.

So there you go, less plastic around, money saved, and genetic algorithms.

P.S. a really advanced polymer chef might figure out if styrofoam

insulation and packaging can be **made 10-14% move** volumetric, at standard strength than 2020 AD styrofoam. ALong with calling on Genetic algorithms the actual human design ideas that might do this are:

It could just work.
Individual chucks of styrofoam from say

mailing packaging crumbles are actually fairly dense. Styrofoam does not make the biggest puffiest crumble fluffs it can, it makes some sort of midpoint of medium sized styrocrumble of engineering specified strength and properties. expanding a microbead that has

been lasered to have, without even remotely actually being a hoberman sphere or a gimbal, lots of concentric linked circles at it. solvent puff expansion brings these lasered-in meridian shapes fairly near the perimeter, and strength is increased at a puffierpuffing ratio of solvent to plastic. I've seen

similar looking jellyfish.

The other thing they could dow ith styrofoam is something kind of bold, they could use sound when they forge the styropellets so the styropellets are like hollow gumballs. It could be cheap, it's just sound transducers aimed at tubes, but

the effect of hollow core styrofoam crumbles is to use 10-20% while the perimeter does all the being strong for the engineering application.

The perimeter gets even stronger with the use of lasered in stringy "imitation hoberman sphere shapes" at the

unpuffed beads. Perhaps combined they make 20%, individually they are 10%, and computer modelling and genetic algorithms could bring them up to 26% less actual mass of polymer to make the same strength of styrofoam (such as packing materials)

Actually, as an aside it

is kind of ok, but stark in contrast. So many people care so much about environmental issues, but all you really have to do to use 20% less of anything, while getting 40-300% more benefit out of it, I think, Is just getting more people to become math literate technologytransferring engineers

and inventors, notably and importantly, completely outside of any environmental field.

If I were an engineer this would make more sense, but so much of what people complain about seems very solvable. Consider forests in the US, and forests globally. epigenetics is not

genetic engineering, but epigenetic changes can make yeast grow 40% faster. Can epigenetic changes to forests make them grow 40% faster, but, beucae you have to spray it on the tree, or at least sprinkle it on the ground, unless you really luck out and electromagnetic modifications to

epigenetics are real, and tunable, and specifiable, cpp that get through roots and leaves,

little wells with antenna on them; yeast live in wells; 1 million different repeater styles (resonators) of antennas, broadcast a million simultaneous frequencies, but not

the main one, see whichresonator wells get green; put that data in a computer (autoscan the wafer) and then do it again. multiplex? blue and greeen together, if new frequency + old frequency, blue frequency without green, g w/o b,

So this kind of brings up: what is an

organism that it benefits a human to be able to tell a different things to do? 20 the century basics; make the 20th century things library; but what else

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## field.

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## roots and leaves,

motor insulation, crystalline, but with amorphous ultrahigh value dielectric amorphous coating so if there was every any cracking the amorphous material would flow into the crack, and be even more insulative than the crystalline

## insulator.

example amorphous halfnium oxide on crystalline (chemical)

benefics generators too as they have long functional lives.

if you think of wire as having a coating on it as an insulator, if the coating had regular insulative beads of its

own diamereter on it, the wires would be spaced further apart on the morot

all beads and hafnium oxide amophous soak ()()()()=()(), even ifthe insulation completely chipped off, the beads would susped it in the air, and depnding on the application, the air could be aither of

sufficient dielectric that the motor omits arcing and continues to work.

1c jewel bearings at alibaba; 200-250 grams oz 2000 degree spraypaint \$6, barium tiatanate (highly insulative dielectric) is about \$1.00-\$5/kg, **BaTi seed beads** strung on wire

laser relaxes insulation: interferometry, warms and wiggles, even ceramic coatings. relaxes insulation with the theory it won't mess up if it is relaxed.

why have I never seen a pole piece, like a tube, on a motor, or a distributed-through

motor computer optimized pole piece. confident and ignorant at the 1/2b. generator, y and fractal and net windings, as a computer optimizable approach to nonlinear windings,

motors vibrate, but if you put them on a plate, and put a weight on the plate,

you might always get them to vibrate at a certain frequency, that they have been engineered to tolerate extra well, so instead of mouting the motor on a plate, can you just put a big bump, or heavey-up an annulus at some part of the motor to give the motor an resonant frequency and a most preferes to vibrate at

frequenccy that are nondeleterious to the motor and its insultion likewise if you mount the motor on a skyhook, and have the shaft connect to its load with contactless magnetic coupling, do you obviate all vibration except that which the motor itself produced, **GA** motor to make only the most wholesome

vibrations, are there good motor preserving vibrations? Orbits might be less f=ma stressy than <-> side to sides, 720 degree spherical vibrations or 3d lissajous, (O) if they exist, might be less stressy than O or <->

bumpers omit banging

Gooseberry strands,

made with a laser, at gel, surrounding a generator or motor, a radiating support web, could be bumper with perimeter decors;

WSU made a substance harder than diamond in one direction, make jewel bearings out of that; magnetic bearing back up,

genetic algorith could find sweet spot where a spurconductor coating on isotopically pure silver wire can drive the generator or also motor at superconductive temperatures (noting the current will flow through the superconductor preferntially at low temperatures;

3D print; interferometry, then laser relaxation of every 3d print layer as it is lain down. nil warpage tendency.

alternatively prestressed concrete may have something to do with 3d printed motors. chip, shatter, snap-off, cleave reistant if prestressed

### concrete mode is tested

linear actuators;

at some horribleness of conductor running a peltier element would actually cool the conductor enough to make the system conduct more electricity than without the nergy

using peltier cooling; so, at non horrible systems is there a peltier efficiency that can turn silver wire more conductive so that the generator/motor is more efficient from onboard in-structure self cooling.

think of 9 nested tin cans of different sizes, another group of tin

cans [= =] can slide into them. the space between tin cans and magnetic windinging is smaller,

and ssandwich theorem, there is a motor electromagnet so puffy or big, that its power f=MA torque is less than that of a smaller volume motor, but perhaps there is also a motor so small,

like a single loop of wire or a stovepipe mono-tube that its its torque is les than a midrange motor; so using genetic alforithms for a desired F, torque, the software tells you what motor to make. It might be that magnetic bearing frictionless inter penetration of winding layers at 2-11 nested

cans is more energy efficient than a single can with a bulky winding.

$$()()) === ) pickup$$

electrohysteris
switchabiliy BaSRTi
and ferrtite compared
to soft iron compared
to steel compared to
some sonderful new
material. running
electricity through the

pole piece causes a change in material hysterisis causeing generator/motor changes. Genetic algorith matches hysteresis of generator and motor pole pieces to load, increasing either refusal to rotate backwards, sustain on torque, (think of a linear actuator pushing gradually at a

metaphorical lower gear compared with quickly at a metaphorically higher gear; when the generator/motor does not know its application, this adjustment could customize it, and even be dynamic.

The crudest variable hysteris pole piece might be liquid crystal

ferrofluid that bunches up ferromagnetic atoms like Co attached to the hydrovarbon part of the liquid crystal when electrified;;

GA fractal sponge wire that has the highest conductivity for the least mass; I think if you made a wire that was like 20% bubbles you would still get

100% conductivity, so metal skinned foam might be the GA direction, then specify that it bend on automated winding well at ceratin angles and see if the metal skinned foam gets a denserfoam-evenwirelike core; #d printed might be very different wire that is also mostly air, nitrogen, argon, Is it

an open cell foam that might xodize more, but that would not matter at aluminum wire, or is ia closed cell foam, and is closed cell foam retaining argon or vacuum without change plausible?

eutectic and antieutectic hydrocarbons; combine them and they solidify; or combine them and they melt lower; areas at catalytic crackers are puped together to make eutectic or antieutectic hydrocarbon mixtures that because they are solids or liquids are easier to crack to higher value products;

so mixing asphalt, or anything at the bottom part of a catalytic cracker, or wax with something, might turn it liquid, where the molecules like to soom and it cracks more easily to something higher value.

alkenes and eutectics, olefins (alkenes) are

higher value, and eutectic alkenes might work.

also, it might use less actual input thermal and motion energy to catalytically crack a eutectic liquid former asphalt or polyene=c-c=

peltier effect annealing; 3D printer that does metal, could

anneal metal on purpose, from STP! yep not forgelike, just santa barabara Ca spring to -40; so print on pelier platform/fridge maybe to make 3d printed stuff stronger, metal especially, I do not know if plastics anneal. 3d printed motors might have annealing to make windings deform less

## with use or other wise increase toughness;

previously written Y and branched net 3D save modes when a length of any size or area shorts out; 3d printing is one option for Y and net/branch shaped windings

intrinsically floating magnets, yep, floats in floods metal foam,

omits getting buried, and keeps turning.

what do endoliths die of? they could autospy samples from old rocks, and find out. Then they could fix those problems for endoliths that live longer than millions of years. It is slightly artistic but 100 million year projected lifespan lifeforms have

#### value.

"evolved the same **longevity strategy 7** times", so different genes, so can put all 7 ways in one mouse, and might work even better than just one way. SO then, what longevity strategy has eveloved idnependently; there is some thing scientists do when

they notice a commonality and track it to genes that allow them to say that.

so like metofrmin and AMPK are a shared way to live longer by not eating, have other organisms come up with completely different solutions to not eating that have applicable packageimport capability?

What do plants do in response to less food? What do mammals do in response to variously rather than just saying "less food": Less protein. **Less Lipids** Less carbohydrates **Less sugars** Less alcohols (sorbitol) Less essential amino acids

enterosorbents make rodents live 40% longer; feed yeast, c elegans. daphnia eneterosorbents and see if they live longer and find out why. ALso, place eneterosorbents generously at the culture media of yeast, c elegans, zebrafish(filter clay),

amoebas and daphnia and see if they cause greater longevity that way. entersorobents at media are longevizing find out what the organisms are secreting to their environment that unless absorbed, effects lifespan deleteriously.

exposing yeast to

enterosorbents could be accomplished by nanogrinding the enterosorbent, and making a kind of yeast culture mud where various 40.60.80% of the yeasts entire body surface wa in contact with a particle of enterosorbent; yeast nutrient medium, mostly sugar I suppose, would filter gradually through the

mud. They would produce more GFP the longer they lived, and flow cytometry could describe their lifespan at the experiment.

At amoebas, daphnia making nano or microparicles of published longevizing charcoals, perhaps flavoring them, likely gets the other organisms to eat that

# or flavored alumina enterosorbents (30-40% longevization)

It w be possible to get bitcoin with paypal, making getting solian amisulpride from that one drop ship pharmacy possible.

This idea was demonstrated in a 2011 study, where Dr. Dinan and his colleagues gave

mice either normal, or food fortified with probiotic *Lactobacillus* rhamnosus bacteria.

They found that mice given the probiotic had reduced anxiety, depression, and a healthier response to stress, which was associated with altered brain levels of the GABA receptor - a protein that detects and responds to the neurotransmitter

#### GABA.

Moreover, a study in human participants showed that supplementation with a probiotic containing Lactobacillus helveticus *R0052* and Bifidobacterium longum R0175 was able to not only able to reduce levels of cortisol - the main stress hormone - but also eased psychological distress.15

https://
supplementsinreview.co
m/nootropic/
psychobiotics-probioticsfor-the-brain/

Daily subchronic administration of PF significantly reduced anxiety-like behaviour in rats (P < 0.05) and alleviated psychological distress in volunteers, as measured particularly by

the HSCL-90 scale (global severity index, P < 0.05; somatisation, P < 0.05; depression, P < 0.05; and anger-hostility, P < 0.05), the HADS (HADS global score, P < 0.05; and HADS-anxiety, P < 0.06), and by the CCL (problem solving, P < 0.05) and the UFC level (P < 0.05). L. helveticus R0052 and B. longum R0175 taken in combination display anxiolytic-like activity in

rats and beneficial psychological effects in healthy human volunteers.

https://pubmed.ncbi.nlm.nih.gov/20974015/